

Escherichia coli O157:H7

Transmission: Contaminated water, raw milk, raw or rare ground beef, unpasteurized apple juice or cider, uncooked fruits and vegetables; person-to-person. *Symptoms:* Diarrhea or bloody diarrhea, abdominal cramps, nausea and malaise; can begin two to five days after food is eaten, lasting about eight days. Some, especially the very young, have developed hemolytic-uremic syndrome (HUS), which causes acute kidney failure. A similar illness, thrombotic thrombocytopenic purpura (TTP), may occur in adults.

Listeria monocytogenes

Transmission: Ready-to-eat foods such as hot dogs, lunch meat, fermented or dry sausage and other deli-style meat and poultry, soft cheeses and unpasteurized milk. *Symptoms:* Fever, chills, headache, backache, upset stomach, abdominal pain and diarrhea; may take up to three weeks to develop; may later develop more serious illness in at-risk patients (pregnant women and newborns, older adults, and people with weakened immune systems).

Salmonella (over 2300 types)

Transmission: Raw or undercooked eggs, poultry and meat; raw milk and dairy products; seafood, and food handlers. *Symptoms:* Stomach pain, diarrhea, chills, nausea, fever, and headache usually appear 8 to 72 hours after eating; may last one to two days.

Shigella (over 30 types)

Transmission: Person-to-person; fecal contamination of food and water. Most outbreaks result from food, especially salads, prepared and handled by workers using poor personal hygiene. *Symptoms:* Referred to as “shigellosis” or bacillary dysentery. Diarrhea containing blood and mucus, fever, chills, abdominal cramps and vomiting; 12 to 50 hours from ingestion of bacteria; can last a few days to two weeks.

Staphylococcus aureus

Transmission: Person-to-person through food from improper food handling. Multiply rapidly at room temperature to produce a toxin that causes illness. *Symptoms:* Severe nausea, abdominal cramps, vomiting, and diarrhea occur one to six hours after eating; recovery within two to three days — longer if severe dehydration occurs.

For additional information, please contact:

CT Department of Public Health
(860) 509 – 7297

CT Department of Consumer Protection
Food and Standards Division
(860) 713 – 6160

USDA Meat and Poultry Hotline
1-800-535-4555

US FDA Food Safety Information Service
1-888-SAFEFOOD

DEPARTMENT OF CONSUMER PROTECTION

Fact Sheet

Causes and Prevention of Foodborne Illness



M. Jodi Rell
GOVERNOR

Edwin R. Rodriguez
COMMISSIONER

What Is foodborne illness?

Foodborne illness is an ailment that often presents itself with flu-like symptoms such as nausea, vomiting, diarrhea or fever. It is often unrecognized because its victims may not realize that the bacteria or other pathogens in food they have eaten are the cause. While there are thousands of types of bacteria naturally present in our environment, not all cause disease in humans. For example, some bacteria are used in making cheese and yogurt.

The bacteria that cause disease are called **pathogens**. When certain pathogens enter the food supply, they can cause foodborne illness. Millions of cases of foodborne illness occur each year. Most can be prevented through the proper handling, cooking or processing of food. Age and physical condition place some persons at higher risk than others for foodborne illness. Very young children, pregnant women, the elderly and those with compromised immune systems are most at risk from any pathogen.

How bacteria get in food

Bacteria may be on products when you buy them. Raw or uncooked meats, poultry, seafood, and eggs commonly harbor bacteria, as does fresh produce such as lettuce, tomatoes, and melons. Even pre-cooked, ready-to-eat foods can become contaminated with bacteria transferred from raw products, meat juices or other contaminated items, or from food handlers with poor personal hygiene.

The “Danger Zone”

Bacteria multiply rapidly between 40°F and 140°F. To keep food out of this “danger zone,” **keep cold foods cold and hot foods hot.**

- Store food in the refrigerator (40°F or below) or the freezer (0°F or below).
- Cook foods to 165°F (145°F for roasts, steaks, and chops of beef, veal, and lamb).
- Maintain hot cooked food at 140°F or above.
- When reheating cooked food, reheat to 165°F.

If you think you may have a foodborne illness

Seek treatment as necessary. If you are in an “at risk” group, or if symptoms persist or are severe (such as bloody diarrhea, high temperature or excessive nausea and vomiting), seek medical care immediately.

Preserve the evidence. If a portion of the suspect food is available, wrap it securely, mark the wrapper with “DANGER” and refrigerate. Save the packaging material. Write down the food type, the date, and other identifying marks on the package, the time consumed, and when the onset of symptoms occurred. Save any identical unopened products, if available.

If the suspect food was served at a large gathering, restaurant or other food service facility, or if it is a commercial product, notify your local health department.

Well-known foodborne bacteria

Campylobacter jejuni

Transmission: Contaminated water, raw milk, and raw or undercooked meat, poultry, or shellfish. *Symptoms:* Fever, headache and muscle pain followed by diarrhea (sometimes bloody), abdominal pain, and nausea that appear two to five days after eating; may last seven to ten days.

Clostridium botulinum

Transmission: Bacteria produce a toxin that causes illness. Improperly canned foods, garlic in oil, vacuum-packed and tightly wrapped food. *Symptoms:* Toxin affects the nervous system. Symptoms usually appear in 18 to 36 hours, but can sometimes appear in as few as four hours or as many as eight days after eating; double vision, droopy eyelids, trouble speaking and swallowing, and difficulty breathing. Fatal in three to ten days if not treated.

Clostridium perfringens

Transmission: Called “the cafeteria germ” because many outbreaks result from food left for long periods in steam tables or at room temperature. The bacteria is destroyed by cooking, but some toxin-producing spores may survive. *Symptoms:* Diarrhea and gas pains may appear 8 to 24 hours after eating; usually last about one day, but less severe Symptoms may persist for one to two weeks.